UNIVERSITY OF WASHINGTON

ARBORETUM BULLETIN

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SUMMER
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President's Message

The history of the Arboretum is truly a story of dedication to an idea that did not come into being until the year 1935. Since that date many sincere men and women, who were dedicated to the extension and the improvement of the University of Washington Arboretum, have given countless hours of their time to insure that this Northwest asset would have continuity and would be available for future generations. Some of the contributions and incidents involving former trustees and members of the Foundation will be recounted in articles in this 35th ANNIVERSARY year. These articles only serve to remind us all that we owe a particular debt of gratitude to the many former members and trustees of the Foundation who, through their efforts, helped keep alive a healthy, growing, and well cared for Arboretum.

This 35th commemorative BULLETIN issue is the second issue with the new BULLETIN *look*! This new format is made possible by a switch in printing method, enabling the use of more photographs and will, we hope, in the future make a more salable package to our advertisers. In this connection I would encourage the membership to pass along the names of any potential or probable advertising prospects to the Arboretum office.

The Photography Contest, using the Arboretum as the subject matter, is under way under the able stewardship of Ken Sorrells and we encourage all photographers of the amateur variety to get the contest rules and to participate.

As you drive through the Arboretum this summer it is hoped that a long needed improvement will be readily recognizable by the dramatic effect it should accomplish along the boulevard. It is planned that a sprinkler system will be installed on the east side of the boulevard which will keep green the areas that brown out so badly in the summer months. All our thanks for this beautification of the Arboretum go to Mr. and Mrs. Donald Graham who have been a guiding force in the Arboretum and the Arboretum Foundation for thirty-five years and more.

As the Annual Meeting of the Foundation is imminent and at that meeting new officers and new trustees will be assuming Foundation responsibilities, I personally want to again thank the officers and trustees, the Unit Council officers and members, and in particular all those who worked so hard to make this year's 35th Anniversary Plant Sale such a huge success. Without everyone's help and cooperation the progress we have made in the last year would not have been possible. Again, my thanks.

Robert J. Behnke

THE UNIVERSITY OF WASHINGTON

Arboretum bulletin

A JOURNAL OF GENERAL HORTICULTURAL INFORMATION
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COVER PHOTO: **The Japanese Garden**

Photo by: Mary Randlett

The Arboretum Bulletin

Vol. I. No. 1. Seattle, Washington December, 1936

INTRODUCING "THE BULLETIN"

An Arboretum for the Pacific Northwest is now assured. Not only is it assured but development work is actually progressing at a pace far beyond the fondest hopes of its many enthusiastic supporters.

With the varied possibilities offered by the Arboretum there will of course be a variety of happenings and experiences, so varied in fact that nearly everybody will find in them something of interest. Through the medium of The Bulletin we hope to pass these on to you for your enjoyment and your use, and if you are not already numbered among our many staunch supporters, to bring you into the fold.

We want to keep you informed of the progress of development of the Arboretum, of accessions of new seeds and plants, and any special gifts.

We desire to make available to you any information we gather about the new or rare species adapted to this region and their cultivation, about plant pests and how to combat them, and to offer suggestions for educational programs.

Finally, The Bulletin will also carry announcements of the blooming times of special groups and individual plants, of special lectures, of plants available for exchange and distribution, and interesting news items.

Hugo Winkenwerder.

A WAYPOINT IN THE TIME CORRIDOR

DORIS BUTLER

With Philip D. Macbride, President of the Board of Regents of the University of Washington presiding at a June 13, 1935 meeting and Hugo Winkenwerder, Dean of the University Forestry School, Donald Graham and Loren Grinstead speaking, preliminary plans for the organization of the Arboretum Foundation were announced. Organization was completed June 27, 1935 and the first members of the Board of Directors were elected. Final incorporation under the laws of the State of Washington was accomplished December 23, 1935 and the seal affixed January 13, 1936 (President L.P. Sieg, January, 1940, *Bulletin,* University of Washington News Letter). The ARBORETUM BULLETIN made its initial appearance December, 1936.

Beginning with this issue of the BULLETIN, then, we acknowledge the 35th anniversary of that organization. We reprint page one of Volume 1, Number 1 of the BULLETIN because we feel Dean Winkenwerder's introductory remarks to be as pertinent today as they were in 1936. In subsequent issues of this anniversary year, we shall be "looking to the past to honor those of you who had the vision to establish this Arboretum and carry it to consumation." (BULLETIN, Vol. II, No. 2, May, 1939.) Herb Ihrig, who worked untiringly to help establish Rhododendron Glen, once said "To list all of those people who have contributed would take a telephone book!" Since we have no desire to compete with that tome, even if we *could* name all who have been instrumental in helping to establish and develop the Arboretum, we shall confine our efforts to thumbnail sketches of some of those early board members. "By looking to the past" we hope to reaffirm our dedication to those principles for which the Foundation was organized: "To promote, foster and assist in the establishment, development, growth and maintenance of an Arboretum" and "to contribute, allot, transfer and deliver funds and property for the purposes herein mentioned . . . ' (Article I, By-Laws of the Arboretum Foundation).

The history of the Foundation is known to those who have been long time members. To our newer members who would better appreciate the present, we suggest an afternoon or two browsing through Foundation scrapbooks and old BULLETINS. Both are available at the Foundation office, the former to be used there, and the latter available in limited quantities at a small fee for your own library. To those who are in accord with our purposes, we invite your participation as members to help us make the next years as productive as the past thirty-five!

HAPPY ANNIVERSARY!

ARBORETUM ANNIVERSARY

DEAN JAMES S. BETHEL

The Arboretum Foundation celebrates its thirty-fifth anniversary in 1970. It was organized in 1935 as a non-profit corporation which could serve in the public domain to encourage interested citizens to support the Arboretum. With the advent of the Arboretum Foundation, a new era of cooperative efforts and accomplishments in developing the Arboretum began.

From its beginning the Arboretum has developed through parallel support from public agencies and private donors. Frequently it has been the support of the private donors that catalyzed important new developments which were later implemented through public financing.

The initial funding by the Seattle Garden Club of the Ohmstead Brothers original plan for the Arboretum made possible the development work on the site which was pursued under a federal government Works Progress Administration project during the depression years of the thirties. It is not surprising then that one of the first acts of the Arboretum Advisory Council after its establishment in 1935 was to foster the organization of an Arboretum Foundation with the intent of continuing this sort of public support. Although, in succeeding years the University has substantially increased its support of the Arboretum, the need for special support in the form of gifts, grants, and requests has continued to grow as well.

The Arboretum has made remarkable progress during the thirty-five years which have elapsed since the Arboretum Foundation began its work in 1935. The favorable reaction to the Arboretum expressed by the delegates to the XI International Botanical Congress held at the University last year attests to its present stature as a botanical garden. Its future is bright indeed if it can continue to grow during the next thirty-five years as it has during the past.

Understandably, the efforts for development during the early years of the Arboretum's existence focused upon buildings and ground — creating an arboretum from wild land. This effort continues to be important. At this stage of its growth, an even more important area of concern is that of exploring the role of the Arboretum in the academic life of the University and the cultural life of the city. As society faces major problems in maintaining the quality of environment, an institution like the Arboretum, which by definition and function is related to improving the quality of life in the community, can make a major contribution. To achieve such a goal will require not only effort by the University but dedicated support from the citizens of the city, the region, and the state.

As the city grows in size and complexity and as the Arboretum matures as a scientific and cultural center, there will be many constituencies with many interests; some botanical, some horticultural and some public service. A measure of the quality of the Arboretum will be the success with which these diverse interests are integrated. If the public, in a variety of ways, supports the Arboretum in the future as it has in the past, the next thirty-five years can be as productive as were the first thirty-five. In this domain the Arboretum Foundation will continue to assume a significant and effective role. ▲

"All Seattle gardens in those days (1888-89) were fenced. Many families kept cows which were allowed to roam at night. There was no herd law. And many had hedges of privet just inside the fence. In the rainy season many roofs were green with moss, probably roofs that had never been painted or stained, and I admired them very much. But in the summer when the moss dried up the fire department considered it a fire hazard, so the order went out that roofs were to be scraped and kept clean, and now the moss has forgotten how to grow."

Gladys France Baker, "Early Seattle Gardens", BULLETIN Vol. III, No. 5, May, 1940.

ESTHETICS VS ATHLETICS ON THE ARBORETUM NATURE TRAIL

*GRANT W. SHARPE AND PAUL McINTOSH**

The creation of a nature trail in the University of Washington Arboretum grew of of several meetings of the University's Arboretum Committee in early 1963. No one specifically remembers who suggested the trail but certainly Professor Emeritus C. Frank Brockman was a consistent advocate of the idea. The 1964 Master Plan, drawn up by the landscape architect firm of Sasaki, Dawson and Demay, shows the trail generally occupying the marsh area west of Interstate 90, its present location.

A more detailed history of the trail — its design, funding, construction and obstacles — appears in Eric Hoyte's Summer 1968 ARBORETUM BULLETIN article entitled "Arboretum Waterfront Trail."

Interpretation (the story of its human and natural history) was planned for the trail in its early stages. The original labels were written in careful detail, 200-500 words per label — too time consuming for the average trail visitor. Observations of trail use showed people arrived in family groups and walked the trail in clusters of three to six. These clusters of people encountered other clusters of people, returning. On a six-foot wide path this presented passing problems. Because of the delays inherent in reading length labels, we decided to hold off on the interpretive story until the novelty of "walking on water" wore off, and trail use subsided.

After two and one-half years the trail use for walking and nature study is as heavy as ever. This could mean there is a shortage of walking trails in Seattle. Such use is not a local phenomenon, however. It should be pointed out that walking for pleasure was rated highest of 16 uses in a recent nationwide summer survey of leisure time activities conducted by the Federal Bureau of Outdoor Recreation.

The trail was officially completed and open for public use on January 1, 1968. Articles in local newspapers brought attention to the trail. Thousands walked the trail in those early months, and the floating bridges afforded fishermen new access.

History doesn't record the first jogger who discovered the trail, but he was quickly followed by ever-increasing numbers of his kind. And who could blame them? The springy pathway and freedom from traffic made this an ideal trail for jogging.

While the number of joggers has been increasing, so have the irritations related to them. The senior author has had wildlife pictures spoiled by joggers arriving at inopportune times. One student in his class was knocked off the trail by a jogger who failed to slow down when he approached the group. Fishermen too have complained of difficulties related to jogger use of the trail. The University Plant Department, which has care of the trail, finds the joggers' rapid gait displaces the gravel from the trail much more rapidly than walking use would.

The incompatibility of joggers with other trail users has been discussed with the University Joggers Club. Some members admitted they had inadvertently frightened people on the trail. Several indicated they shout "coming through" when approaching walkers on the nature trail. Rather than be evicted from the trail, some felt a code of ethics for joggers should be tried. Unfortunately, not all joggers are members of the University Joggers Club, and these others might not adhere to such a code even if they were informed about it.

One irritated citizen, disturbed by the joggers, talked of a lawsuit. Environmentally-aware students at the University have also been complaining, and have asked for prohibition of joggers from the waterfront trail. Typical of today's fired-up students, they want immediate action; and support for preserving the nature aspects of the trail comes from several sectors

(continued on page 26)

*Dr. Sharpe is Professor of Outdoor Recreation in the College of Forest Resources. Mr. McIntosh is a graduate student in the same college, presently assigned to completing the trail interpretation.

Above: This trail offers opportunities for wildlife observation and other nature study, as well as walking for pleasure.
Below: The springy tread of the trail makes it ideal for jogging.

Photos by: Grant W. Sharpe

The Plant Collections of the Arboretum

J. A. WITT

Visitors come to the Arboretum for many reasons. A survey made by a graduate student in 1968 indicated that the majority of the some half million people who come to the Arboretum annually come for its general amenities; the vistas of flowering trees and shrubs, the shady glens and the prevailing air of "getting away from it all." Others find the Arboretum a place for recreation such as fishing in the lagoons of Lake Washington, bird watching, or merely sunbathing on the grassy areas. A substantial number come to find answers to some question of gardening such as "What tree is this?" or "Is there some shrub that will grow well on a hot south-facing wall?"

Despite the variety of uses, the Arboretum is still basically a collection of woody plants which in turn may be broken down for convenience into collections of genera or cultivars of certain species such as *Camellia japonica.* These collections may range from one plant to literally thousands, and it is they that make the Arboretum unique among green spaces in western Washington. While no one will gainsay that the physical arrangement of the Arboretum and its collection is competently done, it is still the almost infinite variety, the wealth of plant materials that *is* the Arboretum.

How did these collections grow? What is their history?

A survey of the back issues of this *Bulletin* gives us an idea of what has gone into their development. In Volume 1, No. 2, January 1937, we see that the nursery contained about 2,100 plants of 175 species, 3,650 cuttings of 125 species and seeds representing 250 species. Assuming there is a minimum of duplication among these plants, this would indicate that some 550 species might be available for planting on the grounds. In May of the same year these figures rose to 816 species and 1,650 varieties. This is indeed an impressive start for an infant arboretum, but unfortunately, checking with the early record book indicates that these figures were somewhat inflated by present day standards, since they included a large number of non-woody species such as iris, onions, asters and a large number of native species already growing on the grounds. Nevertheless, it was a good solid start, and many of those first plants are the nucleus of the present collections.

Plant material came then from many, many sources—as it does now—with the large and established arboreta and botanic gardens of the east and central U.S.A. supplying the greatest quantities. The Drug Garden on the University campus was an especially generous donor to its young sister as were the Seattle city parks.

In 1938 two donations of plants formed the heart of the largest of our present collections, the rhododendrons. In April a carload of these plants came from Mr. C. O. Dexter, Cape Cod, Mass., and were followed by the Dr. Cecil B. Tenny gift of about 30 fine species, 750 plants in all. These two groups of plants are now outnumbered by later acquisitions, but still form some of the most impressive displays in Rhododendron Glen.

In 1939 the acquisition books show that the Arboretum had become cosmopolitan enough to begin ordering seeds from the great English and European Botanic Gardens. This was really the turning point in the assembly of the Arboretum's collections since these seeds were —and still are—the source of the great majority of the present collections. A random survey of the past ten years shows that about two thirds of the acquisitions were received as seeds.

The early 1940's were not a good time for anyone and the Arboretum was not an exception. The old issues of the *Bulletin* show that by May 1941 some 1,500 rhododendrons had been planted as well as 30 varieties of magnolias and some 4,000 trees, shrubs and herbaceous plants placed in Woodland Garden alone. Then came World War II and much that had been done was lost or just barely kept alive by the greatly reduced staff and by devoted volunteers.

The tempo picked up again in 1946, and by 1947 work on assembling the plant collections

was again in full swing. There were checks occasionally such as the drought of 1951 and the disastrous freeze of November 1955 which wiped out entire groups of plants such as *Hebe* and *Ceanothus* and crippled many others such as the Japanese cherries. Yet the collections continued to grow apace. After the 1955 freeze there was an influx of seeds reminiscent of earlier days, and the nursery bulged with fine plants of all types.

In more recent years the acquisition of plants has become more selective and more sophisticated; the main emphasis now is on selection of species to fill missing areas in the collections or to replace doubtfully correct plants with more authentic specimens, using seeds collected in native habitats in Europe, Japan, New Zealand and elsewhere.

The major contributors to this program are still the Botanic Gardens and Arboreta of the world, but now the flow of plant material is a two-way street; the Arboretum is able to distribute as much as it receives.

What are the collections like at this point in time? Figures can be both deceiving and dull, but perhaps a few can show how they have developed over the years.

In total number of taxa (that is, species, varieties and cultivars) the Arboretum's collections amount to about 5,000. This is not the number of plants but the number of kinds of plants. Generally speaking, the broad-leaved evergreens or conifers make up a very sizable part of the collections. To be somewhat more specific, there are (in round figures) 125 genera which are predominantly trees, 200 shrubby genera and 25 genera of vines, for a total of about 350. Included in these figures are 32 genera of conifers, which is a very respectable number indeed.

The largest collection is, to no one's surprise, the rhododendrons, including azaleas. They number some 825 species, clones and hybrids which far outstrip the next largest, the maples *(Acer)* with 230 taxa. Other large groups include:

Camellias – 225
Hollies *(Ilex)* – 130
Pines *(Pinus)* – 100
Junipers *(Juniperus)* – 100
Prunus – 90
Magnolia – 60
Oaks *(Quercus)* – 90
Mountain ash *(Sorbus)* – 60
Spruce *(Picea)* – 55
Birch *(Betula)* – 55
Crabapples *(Malus)* – 50

Of course, numbers don't make for quality of plant material nor do they say much about the aesthetics of the various collections. At best they indicate that the Arboretum is still growing as must any vital organism to stay healthy.

It is not the purpose of this article to deal with individual collections; a number have been detailed in the past in this *Bulletin* including magnolias, pines, and maples. Neither can this short paper discuss what is in some ways the most important feature of the various collections, that is, their skillful blending into each other, the native growth and their physical surroundings. It is the synthesis of all these factors that makes the Arboretum what it is. ▲

ARBORETUM BULLETIN

The ARBORETUM BULLETIN is a special bonus of Foundation membership. It is received by all Foundation members as part of their dues. Membership in the Foundation is open to anyone wishing to assist in promoting and fostering the establishment, development and growth of the Arboretum as stated in the Foundation By-Laws. If you are seeing the BULLETIN for the first time and wish to receive it regularly, we welcome you as a member. Individual copies of the BULLETIN are available at the Foundation office to members and non-members for fifty cents a copy. We also call your attention to the availability of back issues in limited quantities as indicated on the back cover of this issue.

Insect Research at The Arboretum

*SHARON J. COLLMAN**

During the last decade, studies of insects on ornamental plants have become more plentiful. These studies represent an ever-growing awareness of the need for increased research in the area of ornamental entomology. As a relatively new field, there are only a few publications available for the entomologist, or the home gardener, and these references mostly deal with eastern ornamental pests. Though some of these studies have attempted to describe ornamental pests on a nationwide basis, they have been unsuccessful—again, the information was based either on east-coast insects, or on poor descriptions of pests and resultant damage. Accordingly, a center for information on west-coast pests is needed.

As the Arboretum encompasses the largest area devoted to ornamental, or horticultural plants in Washington, it is natural that it should become the center for research on insects and diseases of ornamentals. During the past year-and one-half, several projects have been established to provide the basis for just such a center. Moreover, completion of these projects will provide increased information on insect pests found in the Arboretum and greater Seattle area.

One of these projects was to make a collection of the insects which attack ornamental trees and shrubs. Notes were taken on each pest encountered, its hosts, activity, stage of development, etc. Samples of insect damage also were gathered.

Many of the pests collected were immature insects, the insect stage most frequently encountered, and which often causes the greatest damage. However, positive insect identification can only be made of the adult stage, consequently, immature insects were reared to the adult stage. Examples of each stage of development also were preserved for the reference collection.

In conjunction with the field work, an extensive literature review was conducted for each Arboretum pest. This information, together with field data and labeled collections will provide the Arboretum with the following:

1) A reference collection of insect pests on ornamental plants. Where possible, all life stages are represented. In the future, it will be unnecessary to rear each insect before positive identification is made.

2) A reference collection of characteristic damage patterns, with notes on the insect which inflicted the damage.

3) An information file on pest species, including life cycle, descriptions, photographs, bibliographies, recommended controls, and records of infestations in the Arboretum.

4) A handbook on ornamental pests, which can be used by the Arboretum, home gardener, and entomologist alike. The handbook is to cover the major pests of the Arboretum and the Seattle area. Included in the handbook will be general information about the Arboretum, its pests and control procedures, and a discussion of each pest with its description, life cycle, host plants, damage, and methods of control. Where possible, cultural or natural controls will be stressed. Also, host-pest charts will be compiled for each plant group. Insect pests of each group will be listed together with a brief description of the damage and pest. This handbook is a beginning in an effort to give the public some means of identifying and combating garden problems.

It is hoped that these initial projects will foster more studies in ornamental entomology. There are many entomological areas which need additional study: new methods of pest control, host-pest relationships, and simple keys to all garden problems are but three of the areas requiring further research.

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*Sharon J. Collman is a graduate student in Entomology in the College of Forest Resources. Her research for this article was sponsored in part by a grant from the Foundation.

Arboretum Floral Hall Building

STEVE ARCHIE

The present facilities at the University of Washington Arboretum were constructed in 1936 and 1937 and they are now inadequate to meet the requirements of teaching, research, administration, extension, and public service which the Arboretum has the potential to provide. To satisfy these needs the University Board of Regents has decided to proceed with plans for the construction of an Arboretum Floral Hall Complex. This will be a multi-use building complex providing office space, floral-exhibit space, an auditorium, a library, an herbarium, laboratories, a Visitor Center, greenhouses, and other supporting facilities.

This construction is necessary to help utilize the Arboretum's resources to the fullest extent and is part of an expanded University and Community program designed to achieve the following interrelated objectives: (1) to provide greater scope and depth in the training of students and scientists; (2) to provide greater public service opportunities; and (3) to promote the development of the Arboretum as a focal point for the study and application of environmental science for the urban community.

Currently, the Arboretum is used as a tool in undergraduate and graduate instruction and

research by a variety of University departments, including the College of Forest Resources, and the Departments of Botany, Zoology, Art, and Landscape Architecture. It is used to provide continuing education, information, and extension services to the general public. It is visited by thousands of urban dwellers seeking the amenity values which its grounds provide. And it is used to display the plant collections and promote the horticultural activities which have gained the Arboretum national and international recognition.

With the addition of suitable physical facilities, it will be possible to increase the resident Arboretum staff with specialists in the areas of plant genetics, plant physiology, and plant pathology. The emphasis in the genetics program will be on the development and improvement of ornamental species. A resident physiologist could conduct research on such problems as frost hardiness, drought resistance, and tolerance with respect to woil properties. And a strong plant pathology program is necessary in any large operation involving valuable plant material to carry on preventive, diagnostic, and therapeutic measures against plant diseases.

The usefulness of the Arboretum to all pertinent disciplines within the University community will be greatly enhanced by the availability in the Arboretum of classroom and laboratory facilities. The auditorium and plant-exhibit space will also make it possible for the Arboretum to become a center for a number of public education programs related to plant and environmental sciences.

As the University began to plan for the construction of the needed facilities, it appeared that the available resources in land and money could be used with maximum effectiveness if all building needs could be combined in a single building program. This would have several advantages:

1. A number of the areas in the building could be used for several purposes, and
2. The amount of valuable land space allocated to buildings could be minimized.

In 1967 the Board of Regents commissioned the architectural firms of Nelson, Sabin & Varey, and Brian and Overturf to plan and design an Arboretum Floral Hall Complex. The designers utilized the recommended guidelines established by the University and the resulting design was approved by the University Architects Office in February of 1969. (See attached drawings.) This design will adequately house a staff of sufficient size to administer and develop the Arboretum; it will provide space for an expanded educational and research program; it will provide facilities for handling visitors and inquiries; and it will provide accommodations for the functions of organizations with special relationships to the Arboretum.

The complex will be located near the north terminus of Azalea Way. This site is convenient to existing facilities, parking lots, and roads. The elements of the complex have been designed to relate properly to each other and to prevent damage to the character of the setting. By use of appropriate building materials and by limiting the immediate parking space, the complex should be an asset to its surroundings.

A brief description of the major elements of the complex follows:

1. The Auditorium will have a capacity of approximately 200 persons and will provide space for illustrated lectures to larger groups and for small horticultural exhibits.
2. The Floral Hall will be a central glass-covered plaza for expanded space during the larger exhibits. Permanent and semi-permanent displays will be housed here.
3. The spacious lobby will be used for receptions and for exhibit space.
4. The Visitor Center or Natural History Exhibit Hall will function to interpret the natural history of the relatively undisturbed areas of the Arboretum. This will guide public use in a constructive fashion and provide students with an opportunity to experiment with interpretive techniques.
5. There will be appropriate facilities for investigation and research including a library, herbarium, and laboratories.

(Continued on p. 13)

THIS IS OUR ARBORETUM

PAT BALLARD

The following article by Pat Ballard appeared in the Spring 1956 issue of the Arboretum Bulletin (Vol. XIX, No. 1). With many new members in the Foundation, and because of the timeliness of the article, the Editorial Board thought it would serve a real purpose if repeated at this time.

Pat Ballard was a devoted friend of the Arboretum, serving in many capacities, including long-time membership on both the Editorial Board and the Education Committee.

G. D. M.

During the past few months, in the midst of and because of the threat to the Arboretum by the Toll Bridge Authority with its plan to take over almost one-fifth of the acreage for roads, cloverleafs, under- and over-passes, fills and approaches for the second Lake Washington Bridge, there have been countless questions asked.

"What is an arboretum?"

"What makes it different from a park?"

"What was the origin of our Arboretum?"

"What is the Arboretum Foundation?"

"What are Arboretum Units?"

"What can the Arboretum do for me?"

"Why is this Arboretum important?"

All of these and many more questions have been asked over and over again, and in trying to answer them each of us has come to a new realization of just what the Arboretum means to us as individuals, to our community and our State, and we have gained a better understanding of its place among the horticultural institutions of the nation and of the world.

"What is an arboretum?" It is an ample area set aside for the purpose of growing and displaying a collection of woody plant material hardy in a given region. It is actually a museum with living exhibits, a laboratory of living specimens. In an arboretum the labeled plant material is botanically arranged according to plant families. These exhibits or specimens are available for study by gardeners, nurserymen, landscape designers, or students of botany, horticulture, or forestry. These trees and shrubs may also be (and are, in our Arboretum) grouped in combination plantings for effects at certain seasons, such as in a winter garden containing shrubs which bloom between November and March, or showing fall leaf color and fruits.

An arboretum tests plant material and propagates that which has proven successful, then aids in distributing that plant material to other botanical institutions and to nurserymen, thus making new material available to the gardeners in its immediate and in far distant areas. All this the Arboretum here is doing. The University of Washington Arboretum also exchanges large quantities of seeds with botanical and horticultural institutions all over the world—approximately 150 outside the U.S.A.

"What makes an arboretum different from a park?" That question has probably been answered in the above statements, but to be specific—an arboretum is planned to give satisfaction not only to the eye by its display, but also as a source of information to the public from the beginning gardener to the horticultural expert; and as a place of study for everyone from the Boy or Girl Scout striving for Merit Badges in nature study to the botany professor using it as a laboratory for his graduate students.

"What was the origin of our Arboretum?" For many years there had been dreams of an arboretum in the Pacific Northwest but it was not until January, 1935, that an agreement was actually consummated between the Board of Park Commissioners of the City of Seattle and the Board of Regents of the University of Washington which gave the University the right to use the 257 acres of the Washington Park area for the sole purpose of establishing an arbore-

tum and botanical garden.

But it took far more than a formal agreement between the City and the University to make the Arboretum an actuality. It stands as an example of the miracles which can be wrought by the combined efforts of individuals, institutions, and government. These were difficult times. There was a depression and little money for such a project, but enthusiastic men and women formed the Arboretum Foundation to raise the necessary funds. Garden clubs rallied the forces of their members and gave generously that this dream of the future might become a reality of the present. The WPA put men to work contouring the land, making roads, draining marshy areas, and digging beds for the plants that were to come. The greenhouses were built, seeds were sown and cuttings were rooted to be set out in lath-houses and nurseries. And now, twenty years later, the American Association of Botanical Gardens and Arboretums calls our Arboretum "one of the foremost institutions of its kind in the world."

"What is the Arboretum Foundation?" It is an organization of men and women who are so vitally interested in the Arboretum and in its future that they give countless hours of work and thousands of dollars to assist the Arboretum in its maintenance, in furthering its program, and in extending its scope. Dr. Donald A. Wyman, in *The Arboretums and Botanical Gardens of North America,* says: "A very active and influential 'Arboretum Foundation' has been formed of private individuals interested in the development of this plant collection. This is not necessarily an innovation but is functioning so well that newly planned arboreta or botanical gardens could do well to study its methods of enlisting wide public support."

In addition to giving the Arboretum financial support, the Foundation publishes the quarterly *Arboretum Bulletin,* sponsors lectures, and creates an interest in the Arboretum by emphasizing its horticultural and educational facilities. The Foundation is now making plans for a Floral Hall to be used for shows, displays, and meetings by garden clubs, horticultural groups and Arboretum Units.

"What is an Arboretum Unit?" Units are made up of groups of five to fifty (or more) Foundation members. Unit membership gives the individual the opportunity of extending his or her interest in the Arboretum. That interest may be in gaining a knowledge of plant material, from its identification to its use in the garden; or it may be in voluntary support of Arboretum projects; it might take the form of service by weeding or acting as guides during tours of the Arboretum; by raising plants for the Fall plant sale, or by adding to and maintaining one particular collection of plants. Some units meet four times a year and others hold monthly meetings. We know of at least one group that met once a week, to study plant material, for more than two years.

A Unit Council, made up of representatives from each unit, meets four times a year in order that the units may be informed of Arboretum and Foundation activities. These meetings have been held in the Arboretum Clubhouse but it is fast becoming inadequate for the rapidly increasing numbers. There are, at this writing, 70 units, but by the time this is printed there will probably be several new ones.

"What can the Arboretum do for me?" The meaning of the Arboretum to the individual can best be shown by describing some of its functions.

It is growing an ever-increasing number of ornamental woody plants in order that home owners may become familiar with their names, their mature size and form, their ornamental value, and the proper methods of culture.

It is constantly introducing new plant material to the Pacific Northwest in order that home owners may have more varied and more beautiful gardens.

It is serving you by answering your many questions (there are literally thousands of phone calls each year) on problem plants, plant diseases, pruning, propagating, sources, identification, fertilizing, soils and the right plant for that difficult situation.

It is adding to the horticultural, esthetic, and economic importance of the Pacific Northwest by introducing new plants, new methods, and a great deal of beauty, not only within its own confines but throughout the entire area.

This year we appreciate the services of the Arboretum even more than before. I doubt if

there is a home owner in the Pacific Northwest who did not suffer some plant loss during November's bitter cold. It is from the Arboretum that we will be able to learn just what plants came through without much damage, or without any damage at all. There are such plants, and if you are determined to plan a completely hardy garden you can learn from the Arboretum just what your choice of plant material should be.

In planning a new planting or in buying a new shrub you can usually see the size, habit, and form of that particular plant in maturity by visiting the Arboretum. If they do not have a mature specimen of the species in which you are interested, the staff will search out the information for you from their excellent library.

The books of this fine library of horticultural and botanical publications may be used by individuals, clubs or industry. Since there are few duplicates and since the staff uses these books in their work, they may not be taken away but there is a small room adjacent to the office which is usually available to those who would like to study.

There is a constantly growing collection of several hundred colored slides of plant material which may be borrowed by responsible clubs on adequate notice.

Cut specimens are supplied to garden clubs, horticultural groups and units—subject to availability—and here again advance notice is required.

"Why is the Arboretum important to the Pacific Northwest?" It is advertising the Pacific Northwest to the world. Its *Bulletin* is sent to members from California to New York, as well as Hawaii, Canada, and nine foreign countries.

Its guestbook shows that during the past two years, we have had visitors from 42 of these United States, with Washington, D.C., Hawaii and Alaska, and from 11 foreign countries.

Seventy-five thousand sightseers are brought by bus to the Arboretum during the tourist season each year and unknown numbers come by private cars.

This Arboretum of ours is unusual because of the mild climate in this region. We can grow a wider variety of temperate zone plants in the Pacific Northwest than in any other part of the world, with the exception of parts of the British Isles.

The varied conditions found in the Arboretum acreage make it possible to give plants every situation from lakeshore habitat, through marshy bogs to dry banks on stony hillsides, in soils from heavy clay to light sand—a very unusual state of affairs in a relatively small area.

We have something to be proud of, something to work for, something to tell the rest of the world—

"This is OUR ARBORETUM."

ARBORETUM FLORAL HALL BUILDING

(Continued from page 10)

6. Instructional and Administrative facilities will include two classrooms, a conference room, and a large amount of office space.

7. A large basement area will remain unfinished during the initial construction but will be available as the need arises for expanded laboratory or other space.

8. A greenhouse complex will provide new, increased greenhouse and culture space. It will consist of three elements: (1) a conventional glasshouse with space for controlled-environment chambers, (2) a lathhouse, and (3) a headhouse building containing preparation rooms, office space, and several laboratories.

The complex will probably be constructed in two steps, Phase I and Phase II, as sufficient funds for the entire project are not available at this time. The Phase I construction will include the main building, but not the greenhouse complex, and it will cost approximately $1,200,000. A fund-raising effort is being conducted at this time to raise approximately $300,000 necessary to begin construction.

The architects are presently making the working drawings, and, pending the acquisition of sufficient funds, it is anticipated that the construction might begin late in 1970 or early in 1971. When completed, the Floral Hall complex will be a valuable asset to the University and the entire Puget Sound community.

Young trees of Colorado spruce (*Picea pungens* 'Glauca') planted winter 1947 by east boundary fence. —Photo Jan. 1948 by E. F. Marten.

This aerial photo, taken March 5, 1969 by Walker & Associates, Inc., gives a bird's-eye view of the Arboretum. Foster Island, bisected by the Evergreen Point Bridge, and the Waterfront Trail are at the extreme left. Arboretum Drive East, the upper road is in the lower center of the view, the fence marking the eastern boundary visible as a thin line adjacent to the Golf Course. From Lake Washington Boulevard East in the bottom portion of the picture East Foster's Island Road continues to the bridge at Foster's Island. Azalea Way proceeds from the Offices to the Japanese Garden in the lower right hand portion of the photograph.

Colorado 'blue' spruce (*Picea pungens* 'Glauca'), planted Jan. 1948. —Photo by Wm. Eng; May 26, 1970.

Unit Conversations

Work and Fun Day, April 22, brought out 170 persons armed with garden tools. One month later twelve persons turned out again to weed in the Arboretum. Mrs. Duane Fullmer was awarded a lovely plant for working the most hours. Total for the two days was nine hours.

Husband and wife teams from the Prentice Bloedel Unit #86 had their own Work and Fun Day on May 9 when 16 members invaded the Teahouse in the Japanese Garden with brooms, scrub brushes and paint. For the first time in almost ten years the Teahouse was thoroughly renovated: woodwork was washed; mats scrubbed and bleached; sliding doors and floors cleaned; glass polished; fresh wallpaper on the interior; three-gallons of paint renewed the exterior; grass was picked out of the moss and the teahouse garden raked; the scroll (which disappears occasionally) was replaced again; the copper plates are being re-done in etched aluminum for permanent viewing.

Unit #86 was formed in March, 1968, to assist in the maintenance of the Japanese Garden and to assure the continuance of its original concept so that it would age (in the next 300 years) into an authentic, mature Japanese garden. Ken Sorrells advises that Unit #86 would welcome young couples into their membership who are interested in contributing to this goal. They have a lot of fun along with the work.

Husbands and Wives Unit #62 tried a fun method to gain new members for the Arboretum Foundation. They planned a dinner meeting at the home of Joshua Green, III, with Joseph Witt giving a talk about the Arboretum. Each couple invited another couple. The guests paid $5.00 and were given a membership in the Foundation. Result . . . . another couples unit has been formed . . . . #52.

Classes for tour guides on the Native Walk will be held during the summer. Reservations for these classes can be made by calling the Arboretum Foundation office.

The training class for the Japanese Garden tour guides starts September 14. The first sessions will be held at the Seattle Art Museum, with Dorothy Lahr giving the program on the philosophy of the Japanese garden. The balance of the classes will be September 21, September 28 and October 5.

The Arboretum Explorers meet at 10:00 the fourth Wednesday of each month at the Arboretum parking lot. Unit members do not need a reservation. Come prepared for a pleasant walk through the Arboretum to learn about the plantings.

A Rock Garden Study Group for Unit members has been organized and will begin serious study in September. Any member interested in studying plants suitable for rock gardens should contact Mrs. Dwight Henderson, LA 5-9379.

Mrs. Arthur Kruckeberg has offered to give three propagation classes at her home in late July and early August, furnishing lovely and unusual material from her garden. There will be a fee. Reservations can be made at the Arboretum Foundation office.

For the annual Yearbook Award, first prize went to the Frances MacBride Unit #41; second prize went to the Cascadians Unit #21. The Margaret Mulligan Unit #5 and Mabel Clark Unit #9 received honorable mention.

The Thorgrimson Cup went to the Edith Banghart Unit #24 for their outstanding service to the Arboretum.

Unit 25 celebrated their 25th anniversary on March 18 at the home of Mrs. John Sperry. The program "This is Your Life" included pictures and reminiscing of their 25 years of enjoyment working for the objectives of the Arboretum

Foundation and enriching their own lives. A Certificate of Award was presented to them by Mrs. H. P. Clausing, Unit Council Chairman, in behalf of the Arboretum Foundation and the Unit Council.

It is interesting to note that 15 units formed prior to 1949 are still in existence. Unit #37, started as an informal meeting of immediate neighbors who would just run down the alley in their morning house dresses to the prescribed meeting place for a cup of coffee and a determination to help support the Arboretum.

Another old-timer is the Sylvia Henry Unit #15 which now meets four times a year, has an annual plant exchange and reviews books at each meeting. They contribute money toward the slide collection at the Arboretum. The Unit was named for Sylvia Henry whose husband was librarian at the University of Washington for many years. Many of the members were from the University faculty.

Mrs. Joseph Moodie and Mrs. Reynold Fredin, of Unit Program Planning Committee, have completely revised the Speaker's List. Seventy-three new speakers have been added and many new topics will be available to all Units to assist them in their program planning. Here is a sampling of some of the new programs offered: Garden design for a young family; Non-poisonous control of garden insects and diseases; Plant life zones in Washington; Garden crafts; Low maintenance gardens; Pool plants; Introduction to photography in the garden; History of Japanese Gardens and the history of the Arboretum's Japanese garden; The perennial garden; Gardens abroad; Gardening and horticulture books available through the Arboretum Foundation; Clematis; Rhododendron cuttings; Companion plants; Coordinating colors of azaleas and rhododendrons; History of the Unit greenhouse; Introduction to grafting; History of the Arboretum; Extending the rhododendron season; Importance of life in the soil; Landscaping and landscape construction; Propagating rhododendrons from seed; Propagating from cuttings for fall color; Use and mis-use of pesticides; Maples; Color and texture of the garden which will complement the house interior.

Mrs. John Schwager
6816 - 50th N.E.
Seattle, Washington

REMEMBER
WORK & FUN DAYS?

Dear Mrs. Schwager:

I understand that the "Work and Fun Day" was once again a great success. I am sorry that I was not in the city at the time so that I could have visited the Arboretum while you were celebrating this annual event.

I am sure that an activity of this sort which includes personal involvement of supporters on site makes the whole Arboretum program more meaningful to the participants. Please extend my thanks to those of your members who participated.

Sincerely,

James S. Bethel
Dean

JSB:cmh

The Arboretum Bulletin
Vol. XXXIII, No. 2 Seattle, Wn. Summer 1970

ARBORETUM FOUNDATION OFFICE HOURS

9 a.m. to 4:30 p.m., Monday through Friday
Phone EAst 5-4510

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SPECIAL NOTICE

To keep membership in the Arboretum Foundation in good standing, dues should be paid during the month payable. Active memberships more than three months in arrears will be dropped and The Bulletin will be discontinued.

MEMBERSHIP BLANK

- ☐ Life $500.00
- ☐ Sponsor . . . . . .$100.00 to 500.00
- ☐ Supporting 50.00
- ☐ Contributing 25.00
- ☐ Sustaining 10.00
- ☐ Annual 5.00
- ☐ Group Affiliation
  Garden Clubs, etc. . . . . 10.00 or more

The Arboretum Foundation,
University of Washington Arboretum
Seattle, Washington

I hereby apply for membership in the arboretum Foundation and remittance for same is enclosed to cover dues for the next succeeding 12 months.

Name _____

Street _____ Phone _____

City, State _____ Zip _____

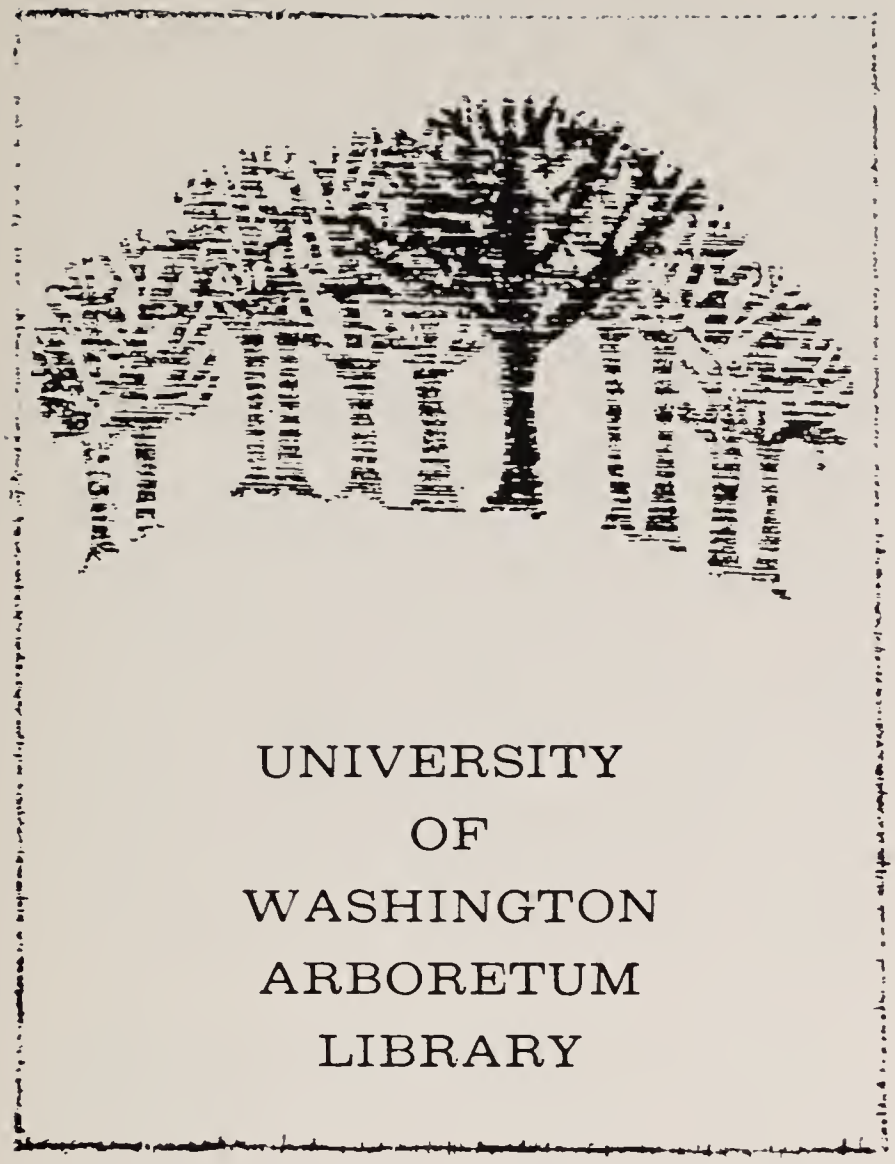
HONORS

Congratulations are extended to three Foundation members whose efforts in other areas have been recognized by special awards presented to them for outstanding contributions.

Arboretum Foundation President Robert J. Behnke was the first recipient of a new "Distinguished Service Award" at the first Awards Banquet of the University of Washington Alumni Association June 12, 1970. Given in recogniztion of the contributions of a member of the Alumni Association over a period of years, the Award represents a wide variety of activities and responsibilities, including being General Chairman of Homecoming, Trustee and President of the Alumni Association, Trustee and President of the Arboretum Foundation, and member of the Advisory Council to KCTS-TV, educational television station. The Arboretum Foundation is proud to have him serve as our President for the third consecutive year.

At their thirtieth Anniversary Meeting and Banquet in Olympia April 17, 1970 the Keep Washington Green Association presented the 1970 Stewart H. Holbrook award for "outstanding service, assistance, performance or editiorial effort in the fields of education, publicity, promotional activities and the demonstration of values of the Keep Washington Green program" to Gordon D. Marckworth. One of the founders of the organization in 1940, Dean Marckworth has served as Acting Director and Trustee, becoming an Honorary Lifetime Trustee in 1962. He is presently a member of the Executive Committee. A strong supporter of the Arboretum, Dean Marckworth is presently serving as Editor of the BULLETIN.

"Quarterback and coach of two generations of conversationists, Audubon leader whose gentle force lends distinction to the cause, she has vastly and beneficially influenced the preservation of wildlife, wilderness and a better environment for mankind" read the citation awarded to Mrs. Neil Haig by the National Audubon Society in May, 1970 at their National conference held in Seattle. Mrs. Haig, known affectionately to many as "the bird-woman of Seattle," is a long-time member of the Foundation's Board of Directors and has served the Foundation in many ways, most notably as Chairman of the Japanese Garden Committee. She has also been a frequent contributor to our BULLETIN. We congratulate her on her most recent and well-deserved honor.



A New Gift for the Arboretum

In seeking to find a fitting memorial for Mrs. Claude Tewell, whose passing was a great sorrow to all her friends in Unit 65, Broadmoor Unit, we finally decided upon a book plate for the Arboretum library. To us in the unit, this gift seemed most appropriate, for Lois Tewell was a scholar and books were her constant companions. In reality, such an addition to the Arboretum library seemed long overdue in view of the rapidity with which the library shelves have been filling, and the many books in circulation.

To this end, therefore, Mrs. Robert McAusland became our artist designer and seven sketches were eventually submitted to the Arboretum office for Mr. Mulligan's inspection. We hope the woodsy simplicity of the final choice will please all of you, and no books will henceforth go astray.

Mrs. Mark Collarino

This is your Arboretum, kept alive by your support

WE ARE PLEASED TO WELCOME THE FOLLOWING NEW MEMBERS (March 1, 1970 through May 31, 1970): *Sponsor*—Simpson Reed Foundation. *Sustaining*—Ronald Borgford, Mrs. Richard J. Siewers, Mr. & Mrs. J. William Tobin, Mrs. Frank N. Ward. *Annual*—Mrs. A. E. Amedeo, Mrs. Galen Anderson, Dr. & Mrs. H. G. Angle, Mrs. Lewis Armstrong, Mr. & Mrs. Jack A. Austin, Mrs. Reginald Banks, Mrs. Glover Barnes, Mrs. Frank T. Barr, Mrs. John W. Benson, Mrs. Frank E. Blake, Mrs. Bruce B. Blauman, Mrs. M. D. Bloom, Mrs. Robert A. Bopbrey, Mrs. Frederick W. Borrow, Mrs. F. Lee Campbell, Mrs. L. S. Carder, Mr. & Mrs. Richard Clark, Mr. & Mrs. L. R. Collins, Mrs. Cameron H. Cooper, Mr. & Mrs. George Corley, Mrs. Sheldon P. Detwiler, Mrs. Marian J. Dougan, Mrs. John Dragoo, Mr. & Mrs. Richard Eberharter, Mrs. Mason Emanuels, Mrs. D. H. Empenger, Mr. & Mrs. Robert Erickson, Mrs. Forest Faulkner, Mrs. Roy C. Fellows, R. Hawley Fitch, Mrs. Paul E. Forbes, Mrs. H. Graham Gaiser, Mrs. Jonathan Gallant, Mrs. John H. Gibson, Mrs. Maynard L. Goldsmith, Jr., Mrs. Sam S. Goto, Dr. & Mrs. Charles F. Gravenkemper, Mrs. Ivan H. Hatfield, Mrs. Charles S. Helm, Mrs. Joe M. Henderson, Mr. & Mrs. David Hervey, Mrs. Charles E. Hoskin, Mrs. L. E. Hufford, Jr., George W. Hutton, Mrs. Orin Johnson, Mrs. Warren L. Johnson, Mrs. Robert C. Kelsoe, Mrs. Paul L. Kleist, Mr. & Mrs. Elif Kuhnle, Mr. & Mrs. James O. Lea, Mrs. I. Lenning, Mrs. Roger A. Lowe, Mrs. Stanley MacFarlane, John MacKean, Mrs. Les Mantooth, Mrs. T. E. McCaffray, Mrs. Luther McLean, Mrs. Sutherland McLean, Mrs. Frank Mechem, Neil Meitzler, Mrs. Edward Merges, Mr. & Mrs. P. E. Morgan, Mrs. C. W. Mossington, Mrs. Roy M. Myer, Mr. & Mrs. John M. Nisbet, H. M. Parker, Leonie K. Piternick, Mrs. Gordon Powell, Mrs. Joseph D. Poxson, Mrs. Robert Pratt, Mrs. Larry Pulford, Mrs. Charles I. Randall, Mrs. Frank J. Reh, Mrs. Harry I. Rice, Mrs. James A. Ridout, Myrl Robertson, Mr. & Mrs. John L. Robins, Andy Rocchia, Roger J. Rohlfs, Mrs. Ann Schuh, Mrs. M. Scki, Mrs. Don M. Shake, Mrs. John R. Shideler, Mrs. S. Shimoda, Mrs. R. W. Stark, Mrs. Charles Starkey, Mrs. Warren Starkey, Alice Stenning, Mrs. Charles C. Swoope, Jr., Mrs. H. G. Taylor, Mrs. Robert W. J. Thomas, Jack W. Torkko, Edward Wagner, Mrs. Charles N. Waite, Dr. D. Wampler, Mr. Harold J. Woosley, Mrs. C. P. Wyckoff.

We are also grateful to the following members who have increased their dues to: *Contributing*—Mr. & Mrs. Fred W. Ingham, Mrs. Max Meerkerk. *Sustaining*—Mrs. Wesley A. Langlow, Thorton T. Munger, Mrs. A. Niven, Mrs. Alexander Wetherill.

Some of Our Favorites

Won't You Send Us Yours?

SOME THOUGHTS ON LODERI VALLEY

*ROSAMOND P. ENGLE**

Thoreau writes in his classic study, WALDEN, "We can never have enough of nature. We must be refreshed by the sight of its inexhaustible vigor." With characteristic insight he unlocks the door to one of man's great needs. It is the reason countless numbers visit the Arboretum each year for renewal and enjoyment. For within its confines it provides a deeply needed sense of beauty, isolation, even wildness. Painters and photographers, students and nature lovers throng here in the spring.

There are so many choice places including Rhododendron Glen, Azalea Way and the Woodland Garden. But for sheer enchantment they are all outdone, to my thinking, by that woodsy area known as Loderi Valley. From a well-marked sign on the Upper Road you proceed down a sloping path. Tall conifers and deciduous trees preside over this small glen. On May Day the native Dogwood spreads its lacy foliage announcing that spring is here. Bud and leaf, so impregnably locked in winter vestments, suddenly burst forth. Interspersed are the fragrant Magnolias, each blossom a white chalice, tipped with purple. As sunshine filters through the trees there is a cheerful concord of color, movement and light.

Next to arrest one's interest are splended plantings of Rhododendrons. They are all large and unusually fine specimens, a breath-taking sight. To enumerate a few there are R. Loderi King George, a regal shrub with softly frilled blossoms; R. Loderi Pink Diamond with large trusses of bellshaped flowers of an ethereal quality; R. Pilgrim, a soft, suffused rose; R. Loderi Sir Joseph Hooker, in bud, a warm ruby color. There are the Loderi seedlings given to the Arboretum some years ago by Mr. Herbert Ihrig, collector of note. At the risk of overstatement one may say that this is a magnificent spectacle. It is not by accident that offspring of the genus Rhododendron thrive so well here. They grow in an acid soil with plenty of leaf mold. Rhododendrons may have priority; they must not have a monopoly. They are accent points in which trees, shrubs and ground covers all play a role.

We are told that for aeons wild rhododendrons have blossomed in the high Himalayas unseen. Dating back to the early seventeen hundreds painstaking explorations were carried on, importations of seed to the West started and cultivation began. Thus we have literally hundreds of species and hybrid varieties today. Both public and private gardens have been enriched by the plant material obtained.

Loderi Valley is accessible for those who would for a time leave the confusion of modern living, to find that like a jewel cut from nature's rough landscape it can bring to each a measure of satisfaction. ▲

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*Rosamond P. Engle (Mrs. Allan B.) has served the Foundation for many years in many capacities. She is presently a member of the Board of Directors, a member of the Executive Board, Chairman of the Memorials Committee, and a valuable member of the BULLETIN Editorial Board. She has written frequent articles for the BULLETIN, notably "Around the Seasons in our Gardens", Summer, 1964 (Vol. XXVII, 2, p. 37) and "A Visit to Santa Barbara Botanic Garden", Winter, 1966 (Vol. XXIX, 4, p. 91).

ENGLISH IMPORTED AURICULAS • POLYANTHUS

PACIFIC HYBRID DELPHINIUMS • SPECIES

Primrose Acres

Between Kenmore and Juanita on 84th Ave. N.E.
(Turn E. off Juanita Dr. on N.E. 141st,
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MRS. L. G. TAIT

14015 - 84th Ave. N.E.
BOTHELL, WASHINGTON

The Arboretum Answers

J. A. WITT

From time to time we will print those questions asked the Arboretum staff by the public. These represent a cross section of the many questions asked each month and may be of interest to our readers. This is a continuation of a column started last issue.

Q. *The young shoots on my pine tree are all turning brown and falling over. What is wrong and how can I save my tree?*

A. Very probably the tree is infected with the European pine shoot moth. The larvae of this moth eats into the new growth at the tip of the branches and kills it. There is nothing one can do once the tree shows signs of this injury because the larvae has already done its damage for the season. Picking off the infected shoots will reduce the moth population, but will not alleviate the hurt done to the pine. The female moth lays her eggs on the tree in June and July and in order to protect the tree you must spray during this period. The Western Washington Research and Extension Center suggests spraying with Sevin or Diazinon the first week in June and then three times more at two-week intervals.

Q. *I saw a plant growing in the Arboretum that I would like to buy. Do you sell plants?*

A. No. As a tax supported institution we can't sell plants in competition with nurseries. We will help you find a source of the plant if we can. If it is a plant which is found only in the Arboretum there are several ways for you to acquire it provided you have patience. The best is to ask a nurseryman if he would propagate it for you. We will allow nurserymen to have a start of almost any plant in the Arboretum for propagating purposes. Certain plants we do not allow propagated this way because they have not been tested enough, because our stock is too small to release or because they were given to us with the understanding that they were not to be distributed commercially without the originator's permission.

You might also inquire of someone in the Unit Council if your plant has been propagated for their annual sale. They sometimes have plants from our unusual specimens available.

Q. *We have a vine-like plant growing in the lot next door that a neghbor says is deadly nightshade. It has purple and yellow flowers and berries that are red and green in the same cluster. Is it deadly nightshade?*

A. It isn't ever easy to identify a plant over the phone, and in ordér to be sure we would have to see a specimen. However, the plant you described sounds as if it were *Solanum dulcamara,* woody nightshade. The green fruits of this plant are quite poisonous, and it should be eradicated, especially if there are children who might be tempted to eat the fruit. If you want to be sure, bring in a portion of the plant including leaves, flowers and fruit if available. Please don't bring in a single leaf. The staff may be skilled at recognizing plants but we're not that skilled!

Q. *Here is a group of my camellias (or rhododendrons) in flower. What are they?*

A. Your best bet is to take the specimens out into the Arboretum and compare them with named specimens there. Identifying these plants, especially where there are literally thousands of different cultivars being grown, is close to impossible. There is no key to the hybrids or varieties, and while we recognize certain ones, we have no way of knowing them all. It is also a good idea to take them to a nursery which specializes in the plants you need identified. ▲

PHOTOS ANYONE?

KENNETH SORRELLS

As a part of the 35th Anniversary program of the Arboretum Foundation a photography contest with awards for winners is the summer and fall project of the newly formed Photo Contest Committee. The contest, for young people and adults, will be confined to only one picture (no slides) in color or black and white for each contestant. Each photograph must pertain to Arboretum activities or subjects in the following catagories:

I Birds in the Arboretum
II Scenes in the Arboretum
III People in the Arboretum
IV Plants or Flowers in the Arboretum

Awards will be made for the best three pictures in each category of black and white and color with a grand award for best of show. Winning prints will become the property of the Arboretum Foundation for a period of two years during which time they will be used for display purposes. The contest ends on October 15, 1970.

All pictures must be taken during the year 1970, and the contest is open to amateur photographers only. The name and address of each entrant and the date picture was taken must be written on the back of the print or attached. No prints will be returned unless postage paid and addressed envelopes are sent with the entry.

No entry form is needed. Just mail black and white photos in 8x10 size or color prints 5x7 to the Arboretum Foundation office, c/o the University of Washington, Seattle, 98105.

"I know no means of calming the fret and perturbation into which too much sitting, too much talking, brings me, so perfect as labor. I have no animal spirits; therefore when surprised by company and kept in a chair for many hours, my heart sinks, my brow is clouded and I think I will run for Acton woods, and live with the squirrels henceforward. But my garden is nearer, and my good hoe, as it bites the ground, revenges my wrongs, and I have less lust to bite my enemies. I confess I work at first with a little venom, lay to a little unnecessary strength. But by smoothing the rough hillocks, I smooth my temper; by extracting the long roots of the pipergrass, I draw out my own splinters; and in a short time I can hear the boblink's song and see the blessed deluge of light and colour that rolls around me."
Ralph Waldo Emerson's Journal, June 12, 1839

DAVIDSONIA, A NEW BOTANICAL JOURNAL

"The ever increasing urbanization, rapid population growth, and the use or misuse of our environment causes man to look inward at the green world for satisfaction and relief from the foment that threatens to engulf us if we cannot plan our role in the environment in a more rational manner than we have done in the past. The purpose of the Botanical Garden is to provide leadership in the understanding of the green world we live in and it is my hope that we may reach our goal through teaching, research and the development of a public awareness of plants in relation to man." Thus commented Dr. Roy L. Taylor, Director of the Botanical Garden of the University of British Columbia, Vancouver, B.C. in DAVIDSONIA, Volume 1, No. 1, to be published quarterly. We commend them on their initial offering and look forward to future issues.

THE COVER PHOTO

EMILY HUDDART HAIG

As the Jananese stroll garden in the Arboretum matures it is bringing out the beauty, fragile and delicate, that was envisioned at the time of the construction.

The recent pruning professionally completed by Mr. Yamashita has added charm and atmosphere. Efforts of the Prentice Bloedel Unit #86 in cleaning and painting the walls, cleaning the tatami mats on the floor, and the hanging placed in the tokonoma have enhanced the general appearance of the teahouse used for ceremonial teas. They have also relaced the darkened copper plates marking the two trees planted by Prince Akahito and Princess Michiko when visiting here.

This garden, one of the attractions of the whole Arboretum already known for its Azalea Way, Rhododendron Glen and Winter Garden and other beautiful features, has now become a leading tourist attraction for over half a million visitors since it was dedicated. May it continue to delight and bring peaceful tranquility for all those who enter it.

Editorial Note: In order that our members may have greater understanding and appreciation of the Japanese Garden, a forthcoming issue of the BULLETIN will be devoted to it.

"The garden that I love is richly peopled with pleasant folk—trees, shrubs, vines, herbs, birds, beasties, fairies and their ilk—and now and then I am privileged to listen to the wisdom that is theirs, and bidden to heed the lessons taught."

Ernest H. Wilson

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Book Reviews

WILD FLOWERS OF GREECE by Dr. C.N. Goulimis, with paintings by Niki A. Goulandris; edited by Dr. W.T. Stearn. Published by the Goulandris Botanical Museum, Kifissia, Greece. 1968. $67.50.

This is the first work to produce life-size illustrations of the flora of Greece since the ten folio volumes of Sibthorp and Smith's magnificient *Flora Graeca* were published between 1806 and 1840, although the must more limited *Wild Flowers of Attica,* by Shirley Atchley, appeared in 1938. It is anticipated that other volumes of this new work will follow.

This was initiated by the late Dr. Constantine Coulimis following his frequent and extensive botanical collections in Greece since 1946, both on the mainland and in the islands; in this he was greatly aided by the interest and skill of Mrs. Goulandris, a most competent artist who has been engaged in this task since 1956 and has now completed more than 800 flower paintings in watercolors. Publication was sponsored by the Goulandris Botanical Museum, founded in 1963 as a center for botanical education and research in Greece, but owing to the death of Dr. Goulimis in the same year it was necessary to find an editor to assemble and correct the material and proofs; this was forthcoming in the person of Dr. W.T. Stearn of the British Museum (Natural History), London, who has added further information when available, references to original and later publications, as well as checking the nomenclature. The book therefore has excellent botanical authority supporting it.

An extensive fifteen page introduction by Dr. Goulimis gives the reader a taste of what he or she can expect to see in Greece at different seasons, in various areas and on a number of specific mountains, as well as in Crete, Euboea, and some of the other islands. The variety is astonishing, both in gener and species; more than 6,000 species have already been recorded from a country about half the size of the British Isles, and of these some 800 or over 13% are endemic in Greece alone.

The present volume depicts 110 species from 31 familes and 65 genera, arranged as in the new *Flora Europaea* (1964 et seq.). Some are plants which are known and grown here, such as *Cistus laurifolisu, Geranium macrorrhizum, Hypericum olympicum, Iris Sintenisii* and *Lillium candidum,* the latest found in several localities throughout the length of Greece. Others may be quite common *(Epilobium,* or *Chamaenerior, angustiofolim,* the fireweed) or very rate *(Paeonia rhodia, Ebenus cretica,* from Rhodes and Crete respectively); there is enough variety to please or interest many tastes in plants. Four species each of *Campanula* and *Cyclamen* are included, six of *Crocus,* five *Ophrys,* with several variations of these remarkable little orchids, and no fewer than seven of *Centaurea,* the knapweed genus, three having yellow flowers. The original paintings have been reproduced with great care on plates measuring 10¾ x 14½ inches; the results are most pleasing and of the highest quality.

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In sum, this is a beautiful, well arranged and most informative volume, except for the noticeable lack of an adequate map of the country; this might well have been placed inside the back cover, or both covers. We indeed hope that more may follow before long, produced in the same style and quality of materials, on which all concerned are to be congratulated; typographical errors are few and slight.

It is also much to be hoped that this extraordinary and unique flora may be preserved in or near its present state for future generations, although Dr. Goulimis' remarks on its continuous destruction by deforestation and overgazing do not sound optimistic. Perhaps there is need for advice and assistance from outside sources to spur the Greek government into talking appropriate action, as well as to arrange expeditions to collect seeds of some of these lovely and often rare plants and try to establish them in comparable climates elsewhere, for example in certain parts of California. It would be most worthy and worthwhile undertaking.

The Arboretum is fortunate in having received a copy of this handsome and valuable work from the Issacson Foundation, Seattle.

BRIAN O. MULLIGAN

ERICAS IN SOUTH AFRICA by Col. H. Baker and E.G.H. Oliver, illustrated by Irma von Below, Fay Anderson and others. Published by Purnell & Sons Ltd. Cape Town, South Africa, (n.d., but probably 1969); large 4-to, pp. i-lxv, 1-180, pl. 1-167. $12.35.

To most persons concerned with plants the word *Erica* means the more or less hardy European species commonly grown in temperate climates, of which the Swiss health, *E. carnea,* the bell heath, *E. cinerea,* and the cross-leaved heath, *E. Tetralix,* are amongst the best known.

But if they obtain a copy of this book by some means, read about twelve pages of the introduction by Mr. Oliver and study the two distribution maps provided they will discover to their probable astonishment that while in the whole of Europe, including the north tip of Africa, there are fourteen known species of *Erica,* and in eastern central African from Ethiopia of Rhodesia another eleven, in Africa south of the Limpopo river (the boundary between Rhodesia and South Africa) there are now recorded no fewer than 605 species of this large, extraordinarily varied and often highly ornamental genus. In fact, after *Rhododendron* it is by far the largest genus in the family *Ericaceae* and its variability in a small area of the earth's surface is considerably greater. On the Cape Peninsula alone there are 103 species; in the Caledon district slightly to the east (an area about 50 miles long by 40 miles wide) the number rises to 220, a phenomenal figure which, as the author says, "is probably not exceeded in any other area of comparable size in the world."

This book is the first to seriously attempt to combine botanical descriptions of a limited number of species (167) with colored illustrations reproduced from paintings made from living material. There has been other botanical and horticultural works on the genus in the past, as can be seen from the Bibliography on p. lxv; in fact the present one is based on that of Guthrie and Bolus in vol. 4 of *Flora Capensis* (1905) which included 469 species.

The work includes an historical account of the genus, both botanically and horticulturally; when and by whom the species were first discovered and introduced to Europe, especially in the last quarter of the 18th and first three or four decades of the 19th century; the monographs written by Salisbury (1802) and Bentham (1838); the published paintings of those brought into cultivation, by Bauer (1796) and Andrews (1802 and 1804-12), besides others of lesser skill and fame. This is followed by the distribution and ecology of the native species, the botanical characteristics of the genus, with some excellent drawings of various types of anthers,—an important feature in distinguishing the species,—and of the 49 different forms of corolla to be found.

A Synopsis of the Sections (41) follows Guthrie and Bolus' arrangement and is succeeded by a complete list of all the South African species in their respective sections, with those illustrated in this work printed in bold type. At least one and sometimes as many as ten or twelve species in each section are illustrated by the excellent and charming paintings of Irma von Below and Fay Anderson, with a few by other artists.

Descriptions of the species in this order, together with the plates, fill the body of the books. The latter are arranged in groups of sixteen plates spaced 20-30 pages apart; from one to four species are placed on each, depending upon the size and quality of the flowers. Even when reduced to four on a page they still provide a good representation of the plant's characteristics, particularly as magnified details of the leaves and flowers are usually included. Many of them are most ornamental shrubs, showing the greatest possible diversity in shape and color of the corolla, the flowers ranging from green to white, pink, rose, red, scarlet, orange, yellow and various combinations of many of these; the form and arrangement of the inflorescences also shows great variety, as do the leaves and sepals in lesser degree.

Descriptions of the plants, in English, average about a page in length; included are references to the original description as well as those in the principal later works; any synonyms of importance; the meaning of the specific name; remarks on the habit, habitat and relationships; adequate botanical details; the distribution, and finally notes on the material illustrated.

Some of these plants are so attractive that more serious efforts should be made to bring them into cultivation in this country. Climatic variations are such that species grow in areas of either winter or summer rainfall, sometimes where snow falls fairly regularly, or on dry mountainsides where summer temperatures may reach 110°F. or more. Some of the most beautiful are found at 5000-6000 ft. elevation, among rocks or on ledges. Surely we can find locations to match these, and the climates also, in the Pacific coast states or on southern Vancouver Island or in the San Juan Islands? Where they cannot be grown outdoors when a cool greenhouse is all that is necessary. Once started they can be propagated by cuttings and maintained indefinitely; most species prefer an acid soil.

This handsome volume will certainly prove both a source of authentic information as well as an incentive to learn how to cultivate these remarkable South African natives.

BRIAN O. MULLIGAN

ESTHETICS VS ATHLETICS

(Continued from page 4)

on campus, two of which are the Graduate and Professional Student Senate (GPSS) and the Teaching Assistants in the Men's Physical Education Department. One of the several recommendations to the Arboretum Committee on June 9, 1970 was "... that jogging be stopped over Marsh Island and Foster's Island areas." Their letter states that "The Arboretum is a fragile shelter within the City of Seattle. Its function is to serve the people as a laboratory and as a sanctuary, preserving wildlife and vegetation. Uses incompatible with this function must be eliminated." Strong words, but not as strong as those from the University of Washington Committee on the Environmental Crisis that circulated a petition worded as follows:

"WATERFRONT TRAIL RESOLUTION

"WHEREAS,
The University of Washington Arboretum Waterfront Trail was conceived, designed, funded, constructed, and intended as a NATURE TRAIL for purposes of nature observation, education, and research, and for esthetic enjoyment and enrichment; and

"WHEREAS,
These designated purposes are entirely incompatible with the purposes of jogging and cross-country running, due to noise, rapid motion, and the resultant frightening of wildlife;

"IT IS RESOLVED:
That jogging and cross-country running be unequivocably prohibited on the Arboretum Waterfront Trail, after the fashion in which bicycles and dogs are thus prohibited, or in which track running is banned from Azalea Way in the Arboretum.

RESOLUTION PREPARED BY UW COMMITTEE ON THE ENVIRONMENTAL CRISIS."

Those students in Outdoor Recreation in the the College of Forest Resources concerned with establishing interpretation on the nature trail take a somewhat broader view, namely:

1. It is not in fact a nature trail until it has interpretation; therefore no attempt should be made to restrict the use of the trail until the interpretive labels are in place.
2. One can't expect to evit a portion of the user clientele peacefully unless an alternative area is found for them.

The answer to 2 above may be easy since joggers presumably had a jogging area elsewhere before the Waterfront Trail was built. If not, something may have to be built for them, such as a trail in the Union Bay land-fill. As for number 1, the new shorter interpretive labels are nearing completion. Funds from the Arboretum Foundation and the Friends of the Arboretum, Inc. should see the project's trail phase completed this summer. Approximately a dozen labels will be placed on the trail. Research on the use and abuse of these metal-photo labels will guide us on further labeling.

In early 1966 President Johnson said "Beyond the limits of the city lies another America," implying it was there for those who could get to it. Shortly after this Secretary of the Interior Stuart Udall declared it was time to make this "other America available to the residents of urban congested areas."

Soon after this, 12 urban trails throughout the United States were given national recognition, with promises of federal matching funds. The Waterfront Trail was one of these so recognized and funded.

The intent of the federal funding of this trail was to satisfy the needs of large numbers of people for a *limited hiking* opportunity. The specific wording of the statement designating the prime feature of this trail is "extensive nature study." It calls for a trail offering opportunities for wildlife observation and other nature study, as well as walking for pleasure.

Environmental conflicts are not new to the Aboretum. We hope the University's Arboretum Committee will find a solution to the problem on the Arboretum Nature Trail. ▲

South bank of Rhododendron Glen prepared for additional planting. —Photo by E.F. Marten; Nov. 1947

South bank of Rhododendron Glen, May 26, 1970

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